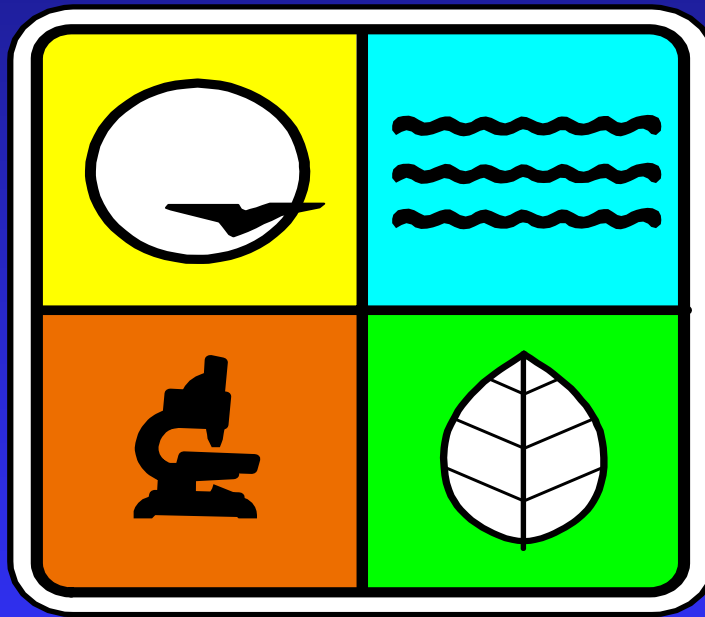


Control Strategy Workgroup

For

Eight-hour Ozone and PM_{2.5} Standards



Refaat Mefrakis, P.E.
October 28, 2004

Objective

- Develop emission reduction control strategies in the State Implementation Plans that are sufficient to attain and maintain the standards while allow the St. Louis area to maintain the economic growth.

Background

- U.S. EPA established a new 8-hour ozone standard.
 - In July 1997
 - Eight-hour average of 0.08 ppm
- This standard has not replaced the existing one-hour ozone standard.
 - Established in 1979
 - One-hour of 0.12 ppm
- Health protection against longer term exposures

Comparison of Ozone Standards

Standard	Federal One-Hour	Federal Eight-Hour
Averaging time	1 hour	8 hours
Level	0.12 ppm	0.08 ppm
Form (attainment test)	Three exceedances allowed in a three-year period, fourth is a violation.	Calculate the three-year average of the annual fourth highest eight-hour concentration and compare to the level of the standard.

Example

Monitor	4 th High 8-hour Ozone Values (ppb)		
	2000	2001	2002
West Alton	88	85	99

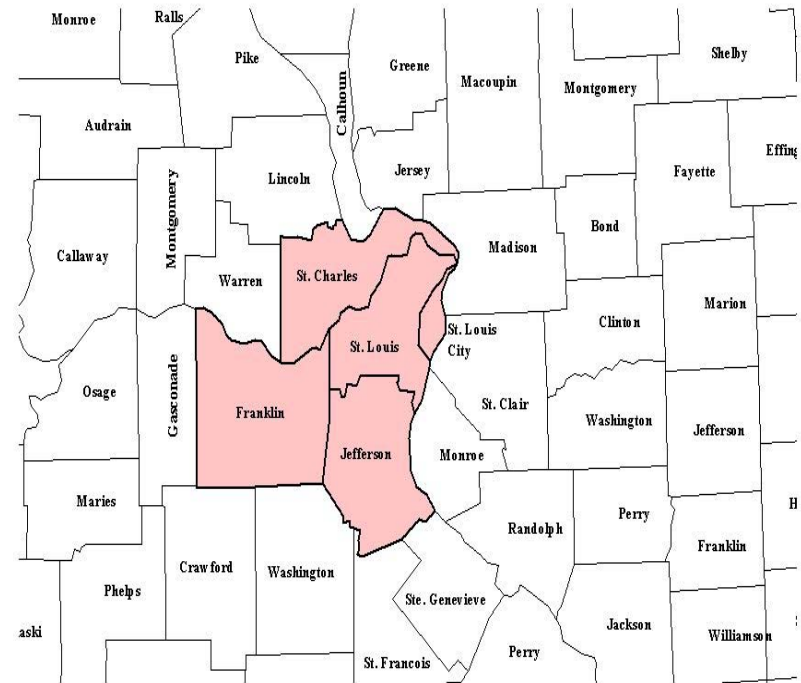
Monitor	00-02
	Average
West Alton	90

Proposed PM_{2.5} and Final Ozone Area Designations

■ MISSOURI PORTION

Jefferson, Franklin, St. Charles, and St. Louis counties as well as the City of St. Louis within the St. Louis area.

Proposed Recommendation for St. Louis Area



Phase 1, 8-Hour Implementation Rule

- Rule Signed on April 15, 2004
- St. Louis Classified as "Moderate

SIP Schedule

- Final Area Designation : Ozone in 2004 and PM2.5 in 2005
- Control Strategy Evaluation : 2004-2005
- SIP Submittals: 2007
- Attainment Dates : 2010

SIP Development Approach

- Hold Stakeholder Meetings
- Perform Emission Inventory
- Define Potential List of Control Strategies for Both Ozone and PM_{2.5}
- Evaluate Emission Reduction and Cost Effectiveness for selected control strategies

Cont.

- Provide Control Strategies to Modeling Workgroup for Evaluation.
- Coordinate and Communicate of Strategies and Technical Information to AQAC.
- Develop and Adopt SIPs, Including Emission Control Programs/Rules, Milestones and Deadlines.

Emission Inventory

- Base year inventory: 2002
- Pollutants: VOC, NO_x, PM_{2.5}
precursors (SO_x, NO_x, Fine particulate,
etc)
- Type of inventory- Point, area,
Nonroad, mobile
- Tools: Transportation Data,
Demographic data, Mobile 6, non-road
models, etc.

Emission Reduction Strategies

- Short List of Control Strategies
- Economically and Technologically Feasible
- Implement As Soon As Practical But not Later Than 2009
- Reduction Must be Quantifiable, Permanent, Enforceable.

Components of the SIP

- Attainment Demonstration Modeling
- Reasonable Further Progress (RFP)
- Reasonable Available Control Technology (RACT)
- New Source Review (NSR)
- Conformity

What's New?

- Phase II of Implementation Rule is not final.
- EPA Granted Earthjustice's Petition to Reconsider Three Issues in the Final 8-hour Ozone Implementation Rule - Phase I:
 - 1) Backsliding of NSR requirements;
 - 2) Findings of failure to attain, bump ups and section 185 fees; and
 - 3) Limitation on applicable requirements.

EPA Website

- <http://www.epa.gov/ttn/naaqs/ozone/o3imp8hr/>